

**AMENDMENTS TO THE DRAWINGS:**

The attached drawings include changes to FIGS. 2, 3, and 5, changing "required" to --requested-- in 201, 203, 208, 301, 304, 308, 501, 504, and 507. The sheets containing FIGS. 2, 3, and 5 replaces the original sheets including FIGS. 2, 3, and 5.

Approval of these changes to the Drawings is respectfully requested.

**REMARKS**

In accordance with the foregoing, the specification, Figures 2, 3, and 5, and claims 1, 6, 8-11, 13, 17, 18, 20, 21, 23, 30, 32, 35, 37, 40, 41, 44, 49, 83-85, and 97-99 have been amended, claims 3-5, 7, 12, 29, 31, 33-34, 36, 38, 39, 45-48, 59-77, 79-82, 86-90, and 100-109 have been canceled, and claims 100-147 have been added.

Support for the amendments to the specification and drawings is found at least in the priority document 10-2003-0026013, which is incorporated into the present specification by reference.

Approval and entry are respectfully requested.

Claims 1-3, 6-11, 13-28, 30-32, 35, 37, 40-44, 49-59, 78-85, 91-108 and 110-149 are pending and under consideration. Reconsideration is respectfully requested.

**REJECTIONS UNDER 35 USC §102 AND §103**

Claims 1-4, 20, 41, 45-49, 64, 80-88 and 100-106 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaji (U.S. Patent No. 6,904,406) in view of well known knowledge in the art.

Claim 1 recites "a port disposed on the display apparatus, through which the received digital video signal and audio signal are transmitted from the display apparatus to the external storage medium."

The Examiner acknowledges that Yamaji does not disclose a digital video.

As such, Yamaji does not disclose "a port disposed on the display apparatus..." as recited in claim 1.

Further, Yamaji discloses "An audio playback/recording apparatus includes an audio input processing section which receives analog audio data, and converts the analog audio data to digital audio data; a playback/recording processing section which compresses digital audio data output from the audio input processing section and stores the compressed digital audio data into a RAM and which decompresses the compressed digital audio data according to attribution data indicating a type of compression..."(see abstract of Yamaji).

Further, Yamaji discloses “[a]nalog audio data (including a music signal) is input to the audio input processing section 11, and the analog audio data is converted to digital audio data. The audio input processing section 11 includes an audio input section 111 and an analog-to-digital converter (A/DC) 112. It will be understood that the audio data used herein includes sound data and music data. An analog audio signal from an input apparatus such as a microphone is input to the audio input section 111. The A/DC 112 is an analog-to-digital converter, which converts the analog audio data from the audio input section 111 to digital audio data, which is also referred to as content.”(see col. 3, lines 32-43 and FIG. 1-emphasis added).

Claim 1 recites “a receiving processor that receives at least one of a digital video signal and an audio signal.”

As noted above, Yamaji fails to disclose any one of a digital video and an audio signal as an input signal.

Further, in Yamaji, an analog-to-digital converter (A/DC) 112(shown in FIG. 1 of Yamaji) is required for process an analog input signal, whereas present invention does not require an analog-to-digital converter for receiving digital video or audio signal as an input signal.

In addition, claim 1 has been amended to recite “...receives a television broadcasting signal... a display unit to display the received digital video signal; a speaker to output the received audio signal ,” which are features of canceled claims 3 and 7.

Yamaji discloses “(1) An analog audio signal input to the audio input processing section 11 is output as an analog audio signal from the audio output processing section 13.(2) An analog audio signal input to the audio input processing section 11 is recorded as digital audio data into an external memory 18A connected to the external recording circuit section 18.”(col. 6, lines 33-39).

As noted above, Yamaji discloses an analog audio signal as input signal but fails to disclose “a television broadcasting signal ... a display unit to display the received digital video signal” as recited in claim 1(emphasis added).

As such, it is respectfully submitted that Yamaji does not disclose the invention as recited in claim 1.

Amended claim 20 recites, at least among other features, “a receiving processor that receives at least one of a digital video signal and an audio signal...”

Again, Yamaji discloses “[a]n analog audio signal from an input apparatus such as a microphone is input to the audio input section 111. The A/DC 112 is an analog-to-digital converter, which converts the analog audio data from the audio input section 111 to digital audio data, which is also referred to as content.” (see col. 3, lines 40-43 and FIG. 1-emphasis added).

As noted above, Yamaji fails to disclose receiving a digital audio signal as recited in claim 20.

Accordingly, it is respectfully submitted that Yamaji fails to disclose the invention as recited in claim 20.

In addition, claim 41 is patentable due at least to the similar rationales as claims 1 and 20, as well as for the additional recitations therein.

Claim 49 has been amended to recite "a receiving processor that receives a digital video signal and a television broadcasting signal; an output unit that outputs the digital video signal and the television broadcasting signal; a port disposed on the reproducing apparatus..."(emphasis added).

Yamaji does not disclose the features as recited in claim 49.

As such, it is respectfully requested that the rejection of claim 49 be withdrawn and claim 49 be allowed.

Claims 100-109 have been canceled without prejudice or disclaimer.

Claim 2 recites "the controller, according to a request from the user and when the received digital video signal and audio signal are stored in the external storage medium, determines whether the received digital video signal and audio signal is to be output through the port."

Yamaji discloses "The controller 21 is connected to various parts, and performs control of the operation of various parts by using a control program stored in the ROM 22. The controller 21 is, for example, a microcomputer and internal control registers and a controller. The controller 21, before processing in various parts, selects a processing file from the ROM 22 and stores firmware used by various parts into the RAM 16. The firmware selected and stored into the RAM 16 by the controller 21 is compression firmware used by the compression section 121, decompression firmware used by the decompression section 122, encryption firmware used by the encryption section 201, and decryption firmware used by the decryption section 202. The controller 21, in response to instructions from encryption/decryption specifying switches (not shown in the drawing) commands the firmware to be expanded. If there are no instructions, default software is used."(col. 8, lines 26-42).

Yamaji discloses a controller 21 how to control using stored firmware such as compressing firmware and decryption firmware, but fails to disclose how to determine "whether the received digital video signal and audio signal is to be output through the port" as recited in claim 2.

Claims 4, 45-48, 59-77, and 80-82 have been canceled without prejudice or disclaimer.

Regarding claim 83, Yamaji merely discloses "it is possible to remove the external recording medium recorder by the external recording circuit section 18 and playing back in another apparatus." (see col. 4, lines 51-54 of Yamaji).

As such, it is respectfully submitted that Yamaji fails to disclose the invention as recited in claim 83.

Claims 84-85 are patentable due at least to the similar rationales as claim 83.

Claims 86-90, and 100-109 have been canceled without prejudice or disclaimer.

Claims 13-18, 30-37, 39-40, 50-56, 59-63, 65-70, 73-77 and 89-91 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Miyatake (U.S. Published Application No. 2003/0192058).

Claim 13 recites "a controller that forms a virtual file system for the external storage medium."(emphasis added).

An aspect of present invention is related to "CPU 118 forms a virtual file system (i.e., a system for managing the stored data) for the storage medium 143 in operation 302. The CPU 118 can download a file system managed by the CPU 142 of the PC 140 or stored on the storage medium 143 using the USB controller 119, and forms the virtual file system. However, the virtual file system can also be stored locally in the display apparatus 110. According to an aspect of the invention, the virtual file system is an abstraction of a physical file system and allows a consistent interface to multiple file systems, both local and remote, and allows a single directory to reference a number of diverse file system types as if the files were in a consistent file system type. However, it is understood that other file systems could be used so long as the file system, whether virtual or otherwise, allows the CPU 118 access to the stored audio and/or video data in the storage medium 143."(see paragraph[0046] of the present invention).

Miyatake discloses "under the necessity of internal processing of the computer, various kinds of information can be stored in an external information storage device 12." (paragraph [0032] of Miyatake).

As discussed above, Miyatake merely discusses "various kind of information is stored in an external information storage device but fails to discuss a virtual file system for the external storage system" as recited in claim 13.

Further, Miyatake discloses "FIG. 12 is an entire block diagram of another embodiment of video retrieval processing according to the present invention. It is executed within the computer 2. Although the embodiment of video retrieval processing shown in FIG. 2 can also be executed at high speed, real time processing, i.e., the speed of 30 frames per second is the limit. An embodiment for exceeding the limit is shown in FIG. 12. The embodiment of FIG. 12 is different from that of FIG. 2 in that the representative frame extractor 20 and the character string converter 21 of FIG. 2 are eliminated and a character string input processor 120 of representative frame is installed instead. All that the character string input processor 120 does is to receive a character string of a representative frame of the target video stored beforehand in the external information storage device 12 as an index and send it to a video name generator 121"(see paragraph [0056]-emphasis added).

As noted above, Miyatake discloses an external information storage device for storing information of video.

However Miyatake fails to disclose "a controller that forms a virtual file system for the external storage medium..." as recited in claim 13.(emphasis added).

Miyatake discusses "At that time, the video to be reproduced may be a video outputted from the video reproducing device 5 connected to the computer, or a digitized video registered in the external information storage device. In case of the video reproducing device 5, the frame number of the head of a scene is sent to the video reproducing device and reproduction is started from a scene corresponding to the frame number. When a frame number of the scene end is reached, an instruction for discontinuing the reproduction is sent to the video reproducing device 5. In case of a digitized video, video data corresponding to the frame number of the scene head are extracted from video data represented by a structure 50 shown in FIG. 5." (see a portion of paragraph[0040] and FIG. 5 of Miyatake).

As noted above, FIG. 5 of Miyatake is "video data structure," but it not virtual file system as recited in claim 13.

Further, Miyatake discusses "The operation procedure of the user for retrieving a video by using the screen of FIG. 4 will hereafter be described. In order to specify an enquiry video, the user first selects several" (see a portion of paragraph[0041]).

As noted above, Miyatake discusses how to retrieve a video but fails to discuss "the controller downloads a file system stored in the external storage medium and uses the downloaded file system to form a virtual system." as recited in claim 14.

As such, it is respectfully requested that Miyatake does not disclose the features of present invention as recited in claim 14.

Claim 15 is patentable due at least to its depending from claim 13, as well as for the additional recitations therein.

Claim 16 recites "the information generated on the basis of the virtual file system comprises management information for the external storage medium" which is not recited in Miyatake.(emphasis added).

As such, it is respectfully submitted that Miyatake does not disclose the invention as recited in claim 16.

Claim 17 recites "a storage capacity of the external storage medium."

However, Miyatake fails to disclose the invention as recited in claim 17.

As such, it is respectfully requested that claim 17 be allowed.

Claim 18 is patentable due at least to its depending from claim 17, as well as for the additional recitations therein.

Claim 30 has been amended to incorporate the features of canceled claim 31.

Claim 30 recites "forming a virtual file system for the external storage medium; generating management information for the external storage medium using the virtual file system; providing the generated management information to the user before the user requests the storage or the reproduction of the received digital video signal and audio signal."

The Office Action asserts on page 10, lines 10 of the outstanding office action that "the representative images are part of the virtual file system"

However, it is noted that a representative images in Miyatake are merely stored image data but the stored image data is different from a virtual file system recited in claim 30.

An aspect of present invention is related to "CPU 118 forms a virtual file system (i.e., a system for managing the stored data) for the storage medium 143 in operation 302. The CPU 118 can download a file system managed by the CPU 142 of the PC 140 or stored on the storage medium 143 using the USB controller 119, and forms the virtual file system. However, the virtual file system can also be stored locally in the display apparatus 110. According to an aspect of the invention, the virtual file system is an abstraction of a physical file system and allows a consistent interface to multiple file systems, both local and remote, and allows a single directory to reference a number of diverse file system types as if the files were in a consistent file system type. However, it is understood that other file systems could be used so long as the file system, whether virtual or otherwise, allows the CPU 118 access to the stored audio and/or video data in the storage medium 143."(see paragraph[0046] of the present invention).

As such, it is respectfully submitted that Miyatake does not disclose the invention as recited in claim 30.

Claim 32, 35, 37, and 40 are patentable due at least to its depending from claim 30, as well as for the additional recitations therein.

Claim 49 has been amended to recite "a receiving processor that receives a digital video signal and a television broadcasting signal; a port disposed on the reproducing apparatus; an output unit that outputs the digital video signal and the television broadcasting signal; and." (emphasis added).

Miyatake discusses "a video reproducing device 5 is an optical disk or a video deck. Video signals outputted from the video reproducing 5 are successively converted to digital image data by a video input device 6 and sent to the computer 2." (see portion of paragraph [0032]).

As noted above, Miyatake discusses input signal is analog image data and the analog image data is converted into a digital image data.

Thus, Miyatake fails to "a receiving processor that receives a digital video signal and a television broadcasting signal; an output unit that outputs the digital video signal and the digital television broadcasting signal."

Further, Miyatake fails to disclose an port disposed on the reproducing apparatus as recited in claim 49.

As such, it is respectfully submitted that Miyatake does not disclose the invention as recited in claim 49.

Claims 50-54 are patentable due at least to their depending from claim 49, as well as for the additional recitations therein.

Claims 59-77, and 89-90 have been canceled without prejudice or disclaimer.

Claims 5, 19, and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyatake in view of Kovacevic (U.S. Patent No. 7,030,930).

Claims 5, 9, and 38 have been canceled without prejudice or disclaimer.

Claims 6-12, 21-27, 29, 42-44, 79 and 107-109 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaji in view of Miyatake.

The Office Action acknowledges that Yamaji fails to disclose the features of invention as recited in claim 6.

Claim 6 recites "if an input of the user requests control of the external storage medium, the controller outputs management information through the port, and uses the management information to manage the storage or reproduction of the received digital video signal and audio signal with respect to the external storage medium." (emphasis added).

As noted above, Miyatake fails to disclose the invention as recited in claim 6.



As such, it respectfully submitted that the combination of Yamaji and Miyatake does not teach or suggest the invention as recited in claim 6.

Claims 8-11 have been amended to depending from claim 6.

Claims 8-11 are patentable due at least to their depending from claim 6, as well as for the additional recitations therein.

Claim 12 has been canceled without prejudice or disclaimer.

Claim 21 recites "the controller forms a virtual file system for the external storage medium, and controls the storage or reproduction of the video and audio signals with the respect to the external storage medium using the virtual file system."

As noted above, it is respectfully submitted that Miyatake does not disclose the invention as recited in claim 21.

As such, it is respectfully submitted that the combination of Yamaji and Miyatake does not teach or suggest the invention as recited in claim 21.

Claims 22-27 are patentable due at least to their depending from claim 21, as well as for the additional recitations therein.

Claim 29 has been canceled without prejudice or disclaimer.

Claim 42 recites "forming a virtual system for the external storage medium..."

As noted previously, it is respectfully submitted that Miyatake does not disclose the invention as recited in claim 42.

As such, it is respectfully submitted that the combination of Yamaji and Miyatake does not teach or suggest the invention as recited claim 42.

Claims 43 and 44 are patentable due at least to their depending from claim 42, as well as for the additional recitations therein.

Claims 79, 107-109 have been canceled without prejudice or disclaimer.

Claim 28 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaji in view of Miyatake as applied to claim 27 above, and further In view of Kovacevic.

Claim 28 has been canceled without prejudice or disclaimer.

Claims 57, 58, 71, 72, 78 and 92-99 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyatake in view of Yamaji.

Claims 57 and 58 are patentable due at least to their depending from claim 49, as well as for the additional recitations therein.

Claims 71-72 have been canceled without prejudice or disclaimer.

Claim 78 is patentable due at least to their depending from claim 30, as well as for the additional recitations therein.

Claims 92-98 are patentable due at least to their depending from claim 30, as well as for the additional recitations therein.

Claim 99 recites "forming a virtual file system for the external storage medium, wherein the external storage medium is incorporated PDA."

Again, neither Miyatake nor Yamaji does teach or suggest the virtual file system for the external storage medium as recited in claim 99.

### **NEW CLAIMS**

New claims 110-149 are provide to afford a varying scope of protection.

Claim 110 is patentable due at least to the prior art not disclosing or suggesting a broadcasting signal receiver which includes, among other features, an output unit outputting first information to control the external storage medium, at least one of video signals and audio signals; and a controller controlling the output unit to output the first information, reading at least one video signal and an audio signal from the external storage medium according to a request based on the first information."

Claims 111- 128, which depend from claim 110, are also submitted to be allowable for at least the same reasons as claim 110, as well as for the additional recitations therein.

Claim 129 is patentable due at least to the cited references not disclosing or suggesting a method of operating broadcasting signal receiver which includes, among other features, "outputting first information to control the external storage medium; reading at least one video signal and an audio signal from the external storage medium according to a request based on the first information..."

Claims 130-146, which depend from claim 129, are also submitted to be allowable for at least the same reasons as claim 129, as well as for the additional recitations therein.

Claim 147 is patentable due at least to the cited references not disclosing or suggesting a displaying apparatus which includes, among other features, " a receiving processor that receives the television broadcasting signal; a Universal Serial Bus (USB) port disposed on the display apparatus and is capable of being connected to the external storage medium; a Universal Serial Bus (USB) controller to connected to the USB port and receives at least one of a video signal and audio signal from the external storage medium;"

Claims 148-149 are patentable due at least to there depending from claim 147, as well as for the additional recitations therein.

**CONCLUSION**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 

Sang Chul Kwon

Registration No. 63,153

1201 New York Avenue, N.W., 7th Floor

Washington, D.C. 20005

Telephone: (202) 434-1500

Facsimile: (202) 434-1501